



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0105; Directorate Identifier 2008-SW-58-AD;

Amendment 39-18562; AD 2016-12-13]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (Previously Eurocopter France)

Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2000-05-17 and AD 2001-04-12, which apply to Eurocopter France (now Airbus Helicopters) Model EC120B helicopters. AD 2000-05-17 and AD 2001-04-12 required repetitive visual checks of the engine-to-main gearbox (MGB) coupling tube assembly (coupling tube) for a crack and replacing any cracked tube with an airworthy tube. This new AD requires removing certain engine mount parts from service, measuring the height of the engine mounting base for certain helicopters, replacing the engine mount if a certain height is exceeded, inspecting the flared coupling on certain helicopters for a crack, and replacing the coupling if it is cracked. Since we issued AD 2000-05-17 and AD 2001-04-12, there have been reports of additional cracks in coupling tubes. These actions are intended to prevent coupling tube failure, loss of engine drive, and a subsequent forced landing of the helicopter.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0105.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> in Docket No. FAA-2014-0105; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the Direction Generale de L'Aviation Civile (DGAC) AD, any incorporated-by-reference information, the economic evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: James Blyn, Aviation Safety

Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email james.blyn@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On May 29, 2015, we issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to remove AD 2000-05-17 (65 FR 13875, March 15, 2000) and AD 2001-04-12 (66 FR 13232, March 5, 2001) and add a new AD. AD 2000-05-17 applied to Model EC120B helicopters with engine coupling tube part number (P/N) C631A1002101 and required recurring inspections of each coupling tube for a crack and replacing any cracked coupling tube with a reinforced coupling tube P/N C631A1101101. AD 2001-04-12 applied to Model EC120B helicopters with engine coupling tube P/N C631A1101101 and required repetitive visual checks of each coupling tube for a crack. AD 2000-05-17 and AD 2001-04-12 were prompted by reports of cracks on the reinforced coupling tube and were intended to prevent coupling tube failure, loss of engine drive, and a subsequent forced landing.

The NPRM published in the Federal Register on June 16, 2015 (80 FR 34335). The NPRM was prompted by reports of additional cracks in coupling tubes. Eurocopter France (now Airbus Helicopters) determined that the washer-type engine mount may, in certain cases, induce excessive loading on the coupling tube, which results in binding that increases component wear of the inner diameter of the mounting base. Because of this, the DGAC, on behalf of the European Aviation Safety Agency (EASA), issued AD No. F-2003-325 R1, dated May 12, 2004, for Model EC120B helicopters with engine

coupling tube, P/N C631A1101101, and with an engine mount containing certain parts listed in Eurocopter Alert Service Bulletin (ASB) No. 04A005, dated July 16, 2003. DGAC AD No. F-2003-325 R1 requires inspections for helicopters with an engine mount block modified in accordance with Eurocopter Service Bulletin (SB) No. 71-003, Revision 1, dated July 18, 2002; replacing any coupling tube that has a crack; and increasing the life limit of the coupling tube from 1,000 flight hours to 20,000 flight hours. Also, DGAC AD No. F-2003-325 R1 requires, for helicopters with a new spring-loaded engine suspension modification in accordance with Eurocopter SB No. 71-005, Revision 0, dated May 14, 2004, increasing the life limit of the coupling tube to 20,000 flight hours and canceling the repetitive inspections of the coupling tube.

The NPRM proposed to require, for helicopters with certain engine mounts, before further flight, removing from service certain engine mount parts and measuring the height of the engine mounting base. If the height is more than 10.5 millimeters, the NPRM proposed replacing the engine mount with an engine mount that does not have the affected parts. For certain other helicopters, the NPRM proposed to require within 25 hours time-in-service (TIS) replacing the spring-type engine suspension system, dye-penetrant inspecting the flared coupling for a crack, and replacing any cracked flared coupling. The NPRM also proposed removing coupling tube P/N C631A1002101 from service and prohibiting installation of that coupling tube on any helicopter.

Since the NPRM was issued, the FAA Southwest Regional Office has relocated and a group email address has been established for requesting an FAA alternative method of compliance for a helicopter of foreign design. We have revised the contact information throughout this final rule to reflect the new address and new email address.

Comments

After our NPRM (80 FR 34335, June 16, 2015) was published, we received comments from one commenter.

Request

Airbus Helicopters disagrees with the proposed requirement to replace the spring-type engine suspension system in accordance with Eurocopter SB No. 71-005 for helicopters with an improved engine mount under Eurocopter SB No. 71-003. Airbus Helicopters states there have been no coupling tube failures since incorporation of Eurocopter SB No. 71-003, and therefore the proposed requirement would not increase safety levels.

We disagree. Installing the improved engine mount specified in Eurocopter SB No. 71-003 extends the compliance time for a recurring visual inspection of the coupling tube from 5 hours TIS to 25 hours TIS. When issued, that recurring inspection was considered a short-term interim action until an effective modification or action was developed, approved, and available. Eurocopter SB No. 71-005 contained such an effective action to cancel that interim action and was developed and approved in May 2004.

Airbus Helicopters requested that, if we mandate the proposed requirement to replace the spring-type engine suspension system in accordance with Eurocopter SB No. 71-005, we change the proposed compliance time from 25 hours TIS to 18 months to allow for availability of parts.

We disagree. Eurocopter SB No. 71-005 was approved May 13, 2004. The NPRM was published June 16, 2015. The substantial amount of time that has passed since the

approval of the service information and publication of our NPRM provided operators with enough notice of our proposal to mandate that procedure such that availability of parts should not be an issue.

FAA's Determination

This helicopter has been approved by the aviation authority of France and is approved for operation in the United States. Pursuant to our bilateral agreement with France, the DGAC on behalf of EASA, has kept the FAA informed of the situation described above. We are issuing this AD because we evaluated all information provided by the DGAC, reviewed the relevant information, considered the comments received, and determined the unsafe condition exists and is likely to exist or develop on other helicopters of this same type design and that air safety and the public interest require adopting the AD requirements as proposed.

Related Service Information Under 1 CFR part 51

Eurocopter issued ASB No. 04A005, Revision 0, dated July 16, 2003, which prohibits, after June 30, 2004, operating an engine mount made up of the following parts: support arm, P/N C714A1107201; swaged support arm, P/N C714A1106201; left-hand support bracket, P/N C714A1101102; and right-hand support bracket, P/N C714A1101103. ASB No. 04A005 also specifies measuring the height of the engine mounting base and, if the height is more than 10.5 millimeters, replacing the engine mount with an engine mount that does not have the specified P/N. ASB No. 04A005 does not apply to helicopters modified with an improved engine mount in accordance with SB No. 71-003. ASB No. 04A005 also does not apply to helicopters with a serial number 1170 or larger, as the specified engine mounts are not installed on those helicopters.

Eurocopter also issued SB No. 71-005, Revision 0, dated May 14, 2004, which contains procedures to modify the spring-type engine suspension system and dye-penetrant inspect the flared coupling assembly.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

Eurocopter issued SB No. 71-003, Revision 1, dated July 18, 2002, which contains procedures to improve the engine mount. Eurocopter also issued ASB No. 05A003, Revision 2, dated July 16, 2003, for helicopters that have not been modified with an improved engine mount in accordance with SB No. 71-003, which specifies inspecting the coupling tube for a crack every 5 hours and establishing a coupling tube life limit of 1,000 hours. For helicopters that have been modified with an improved engine mount, ASB No. 05A003 specifies inspecting the coupling tube for a crack every 25 hours and increasing the coupling tube life limit to 20,000 hours. ASB No. 05A003 was revised to Revision 3, dated May 11, 2004, to specify an optional spring-type engine suspension modification and cancel the repetitive inspection for this modified configuration.

Differences Between This AD and the DGAC AD

This AD requires the installation of the spring-type engine suspension modification specified in Eurocopter SB No. 71-005 and does not require the repetitive inspection of the coupling tube and the engine mount base. This AD also does not require you to contact the manufacturer.

Costs of Compliance

We estimate that this AD will affect 23 helicopters of the 115 helicopters of U.S. Registry. At an average labor rate of \$85 per work-hour, we estimate that operators may incur the following costs in order to comply with this AD.

Installing new mounting arms and brackets requires about 12 work-hours and required parts cost \$9,194, for a total cost per helicopter of \$10,214 and \$234,922 for the U.S. fleet. Installing the mounting spring kit requires about 14 work-hours and required parts cost \$14,621, for a total cost per helicopter of \$15,811 and \$363,653 for the U.S. fleet. Dye-penetrant inspecting the coupling tube requires about 1 work-hour for a cost per helicopter of \$85 and \$1,955 for the U.S. fleet.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that a regulatory, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2000-05-17, Amendment 39-11627 (65 FR 13875, March 15, 2000); and AD 2001-04-12, Amendment 39-12131 (66 FR 13232, March 5, 2001); and

b. Adding the following new AD:
2016-12-13 **Airbus Helicopters (Previously Eurocopter France)**: Amendment 39-18562; Docket No. FAA-2014-0105; Directorate Identifier 2008-SW-58-AD.

(a) Applicability

This AD applies to Model EC120B helicopters with an engine-to-main gearbox coupling tube assembly (coupling tube), part number (P/N) C631A1101101 or P/N C631A1002101, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a coupling tube. This condition could result in coupling tube failure, loss of engine drive, and a subsequent forced landing of the helicopter.

(c) Affected ADs

This AD supersedes AD 2000-05-17, Amendment 39-11627 (65 FR 13875, March 15, 2000) and AD 2001-04-12, Amendment 39-12131 (66 FR 13232, March 5, 2001).

(d) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

(1) For helicopters with a serial number up to and including 1169, not modified with an improvement of the engine mount in accordance with Eurocopter Service Bulletin (SB) No. 71-003, Revision 1, dated July 18, 2002 (SB 71-003), or not modified by installing a spring-type engine suspension system in accordance with Eurocopter SB No. 71-005, Revision 0, dated May 14, 2004 (SB 71-005), before further flight:

(i) Remove from service the following engine mount parts:

(A) Support arm, P/N C714A1107201;

(B) Swaged support arm, P/N C714A1106201;

(C) Left-hand support bracket, P/N C714A1101102; and

(D) Right-hand support bracket, P/N C714A1101103.

(ii) Measure the height of the engine mounting base as depicted in Figure 1 of Eurocopter Alert SB No. 04A005, Revision 0, dated July 16, 2003. If the height is more than 10.5 millimeters, replace the engine mount with an engine mount that does not have the parts identified in paragraph (f)(1)(i) of this AD.

(2) For helicopters with a serial number 1170 and larger or helicopters modified with an improvement of the engine mount in accordance with SB 71-003:

(i) Within 25 hours TIS, replace the spring-type engine suspension system and perform a dye-penetrant inspection of the flared coupling for a crack by following the Accomplishment Instructions, paragraphs 2.B.2.a through 2.B.2.c of SB 71-005.

(ii) If there is a crack in the flared coupling, before further flight, replace the coupling with an airworthy coupling.

(3) For helicopters with coupling tube, P/N C631A1002101, installed, before further flight, remove coupling tube, P/N C631A1002101, from service. Do not install coupling tube, P/N C631A1002101, on any helicopter.

(g) Special Flight Permits

Special flight permits may be issued provided there are no cracks in the coupling tube attachment fitting.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: James Blyn, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information

(1) Eurocopter Alert Service Bulletin (ASB) No. 05A003, Revision 2, dated July 16, 2003; Eurocopter ASB No. 05A003, Revision 3, dated May 11, 2004; and Eurocopter Service Bulletin No. 71-003, Revision 1, dated July 18, 2002; which are not incorporated by reference, contain additional information about the subject of this final rule. For

Eurocopter service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in Direction Generale de L'Aviation Civile (DGAC) AD No. F-2003-325 R1, Revision 1, dated May 12, 2004. You may view the DGAC AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2014-0105.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6310, Engine/Transmission Coupling – Coupling Tube, Engine Mount, and Engine Mount Base.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin No. 04A005, Revision 0, dated July 16, 2003.

(ii) Eurocopter Service Bulletin No. 71-005, Revision 0, dated May 14, 2004.

(3) For Eurocopter service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000

or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on June 9, 2016.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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